

In the Claims

1. (Currently Amended) In a communications system having a checkpoint server and a router, said router having a router server, a method for reconstructing separate but interrelated data comprising:

determining whether there has been a new connection having a corresponding base layer established through said router;

if there is a new connection through said router, creating a unique connection identifier for said new connection;

if there is a new connection through said router, creating a unique connection identifier for said new connection;

storing said checkpointing data within said checkpoint server wherein said checkpointing data consists of connection information including said corresponding base layer~~with~~ and said unique connection identifier ~~therein~~ within said checkpoint server;

determining whether there has been a change of state for an existing connection running on said router; and

Storing said checkpointing data corresponding with said change of state of said existing connection in ~~to~~ said checkpoint server responsive to a determination of said change of state in said existing connection wherein said checkpointing data consists of connection information and includes said unique connection identifier for use in re-establishing said connection.

2. (Cancelled)

3. (Currently Amended) The method of claim 1, further comprising the acts of:

determining whether there is checkpointing data available within said checkpoint server for a firewall application; and

recovering said checkpointing data by said firewall application from said checkpoint server if there is data available within said checkpoint server for said firewall application.

4. (Cancelled)

5. (Currently Amended) In a communications system having a checkpoint server, a router, and a firewall application having at least one connection therethrough, a method for uniquely checkpointing data comprising:

creating a unique connection identifier corresponding to ~~each at least one~~ a connection through the router;

storing checkpointing data consisting of data regarding said ~~at least one~~ connection through said router within said checkpoint server; and
encoding said checkpointing data stored within said checkpoint server with said corresponding unique connection identifier.

6. (Currently Amended) The method of claim 5, further comprising the acts of:

recovering said checkpointing data from said checkpoint server; and
reassembling said data for ~~each at least one~~ said connection according to said unique connection identifier of ~~each at least one~~ said connection to re-establish said connection.

7. (Currently Amended) A communications system apparatus, having a router with connections running therethrough, the router further having a router server therein, said communications system comprising:

a firewall application device running within the router, said firewall application device responsive to connections made through said router; and

a checkpoint server device running within said router, said checkpoint server device responsive to said firewall application device,

said firewall application device configured to create a unique connection identifier in response to a connection made through said router, and said firewall application device configured to store checkpointing data

consisting of data associated with said connection with corresponding said unique connection identifier embedded therein to said checkpoint server.

8. (Original) The communications system apparatus of claim 7, wherein the firewall application device is further configured to recover said data from said checkpoint server and reassembling said data using said unique connection identifier embedded within said data.
9. (Currently Amended) A program storage device, tangibly embodying a program of instructions executable by a machine to perform a method for reconstructing separate but interrelated data, said method comprising:

determining whether there has been a new connection having a corresponding base layer established through said router;

if there is a new connection through said router, creating a unique connection identifier for said new connection;

storing checkpointing data in said checkpoint server wherein said

checkpointing data consists of data regarding said new connection and

includes said corresponding base layer with said unique connection

identifier ~~therein within said checkpoint server;~~

determining whether there has been a change of state for an existing

connection running on said router; and

Storing checkpointing data corresponding with said change of state of said existing connection to said checkpoint server responsive to a determination of said change of state in said existing connection wherein said checkpointing data consists of connection information and ~~data~~ includes said unique connection identifier for use in re-establishing said connection.

10. (Cancelled)

11. (Currently Amended) The program storage device of claim 9, further comprising the acts of:

determining whether there is checkpointing data available within said

checkpoint server for a firewall application; and

recovering said data by said firewall application from said checkpoint server if

there is data available within said checkpoint server for said firewall

application.

12. (Cancelled)

13. (Currently Amended) A program storage device, tangibly embodying a program of instructions executable by a machine to perform a method for uniquely checkpointing data, said method comprising:

creating a unique connection identifier corresponding to ~~each at least one a~~

connection through the router;

storing checkpointing data within said checkpoint server for said connection
wherein said checkpointing data consists of connection data regarding each
~~of said at least one~~ said connection through said router within said
checkpoint server; and

encoding said checkpointing data of ~~each~~ said at least one connection within
said checkpoint server with said corresponding unique connection identifier
of ~~each~~ said at least one connection.

14. (Currently Amended) The program storage device of claim 13, further comprising
the acts of:

recovering said checkpointing data for ~~each~~ said at least one connection; and

reassembling said connection data for ~~each at least one~~ said connection
according to said unique connection identifier of ~~each at least one~~ said connection.